REMARKS

Claims 1, 3-14 and 16-26 are currently active.

The Examiner has found Claims 4, 6, 10-13, 17, 19 and 23-26 allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The Examiner has rejected Claims 1 and 14 as being anticipated by Moir. Applicants respectfully traverse this rejection.

The Examiner cites paragraph 48 of Moir as support for the finding of this aforementioned limitation and that Moir anticipates Claim 1. However, for a reference to anticipate a claim, there can only be one clear interpretation of the teaching of the reference, and this interpretation specifically teaches all the limitations of the claim. If there is any ambiguity in a teaching of a reference, that is, the teaching can be interpreted to be something other than the limitation of the claim, there can be no anticipation.

Referring to paragraph 48 of Moir, it teaches that when the virtual machine 10 switches a packet to an egress virtual interface 26, the flow class to which the relevant packet

belongs provides a transmit code point which specifies the transmission requirements of the relevant flow class. Each virtual interface is created to support a specific network topology, and to specify how to map a packet to and from the external network. Specifically, each virtual interface includes configuration to set the type of underlying physical interface period, assign a driver instance (the realization of the physical layer), and assign a label space of the physical layer that the virtual interface can use. It is respectfully submitted, that nowhere is there is the specific teaching at the virtual interface subsystem include channel virtual interfaces in media virtual interfaces is found in Claim 1.

Referring to Moir, there is disclosed a method and system to implement policy-based network traffic management. Moir teaches it has become desirable to offer varying levels of service to various a network entities. Moir teaches a system to implement policy-based network traffic management. Moir teaches that a virtual machine 10 has been hosted on a network connection device 12. The virtual machine 10 includes a classifier 14 that classifies incoming network traffic 16 in accordance with a set of classification rules 18 provided by a network owner. Each packet within the incoming network traffic 16 is classified by the classifier 14 into one of several flow classes 20 and flow instances 22 by the classification rules 18. See column 2, paragraph 28.

The virtual machine 10 is shown to receive network traffic from a number of network connections via a number of ingress virtual interfaces 24, and to output classified network traffic via a number of egress virtual interfaces 26 to ATM network connections. The virtual interfaces 24 and 26 may constitute a physical port and/or a virtual channel. Network traffic entering one of the ingress virtual interfaces 24 is operationally classified by the virtual machine 10 utilizing the classification rules 18. A packet, frame or cell is then routed, switched or bridged to an appropriate egress virtual interface 26, as defined by the classification rules 18. See paragraph 29.

The virtual machine 10 includes both the classifier 14 and the labeler 15. The classifier 14 operates to classify packets into one of several flow classes' and flow instances. The classifier 14 extracts from each packet a signature, which is then parsed into two distinct fields, the flow class discriminator which defines the class of a flow to which the packet belongs, and a flow instance discriminator which identifies to which instance of the flow class the packet belongs. In general, the flow class is utilized to specify transmission control, while the flow instance is utilized to specify admission control. See paragraph 31.

Moir teaches three discrete rules-based processes that may be implemented autonomously. The first rules-based process is a classification process performed by the classifier 14. The event management rules 17 and label management rules 19 are configured

utilizing compiled virtual machine rules. A compiled event management rule 17 is associated with significant events and the life cycle of a flow class 20. See paragraph 32.

Event management rules 17 may be utilized to tailor fine-grain behavior of the network connection device 12 and support the emission control policies, and to implement appropriate behavior in response to resource management protocols. The label management rules 19 are utilized by the labeler 15 to invoke, and respond to peer-peer label and exchange protocols. This allows a dynamic bonding of label spaces to occur between adjacent network devices. See paragraph 33.

The signature 31 is specified by the classification rules 18 and may comprise any combination of fields and/or data within the packet 29. The signature 31 is utilized as a tag to perform a lookup within the policy table 30 to located a policy for handling of the relevant packet 29. The policy may specify various service parameters 32. The service parameters 32 relate to ATM traffic management and are provided to an ATM traffic management module 34 which applies the service parameters 32 to various flows outputted via one or more egress virtual interfaces 26. See paragraph 34.

The signature 31 of a packet 29 is utilized by the classifier 14 to differentiate the packet 29 from other dissimilar packets. Sequences of packets bearing in the same

signature are termed flows. The flow is said to be instantiated when the classifier 14 recognizes a packet 29 bearing the flow signature, and persists until the amount of time between packets 29 bearing the flow signature exceeds a particular amount of time. See paragraph 35.

The virtual machine 10 does not impose any structure on a signature 31 or a packet 29. The classifier 14 operates to determine the signature 31 of the packets 29 by evaluating the classification rules 18. An egress virtual interface 24 may also be considered an implicit part of a packet signature 31. The classifier 14 is configured by making association between tags and their corresponding policies and the policy table 30. Each entry within the policy table 30 is a set of data items, amongst which are specified the fields of the packet signatures 31 to be utilized for classification. Each field may be given a value and a mask. Upon receipt of a packet 29, a classifier 14 searches the policy table 30 for entry that matches the signature 31 of the packet 29. To locate such a match, the classifier 14 first masks the packet signature 31 with a FCD mask, and then compares it to the FCD value. If the match is successful, the packet 29 is processed as a member of a corresponding flow class. Once a packet 29 has been classified as a particular flow class, it is processed according to this specification in the flow class table 36.

Moir teaches a virtual interface is a logical description of a physical interface, which hides the details of any underlying multiplexing. When the virtual machine 10 switches a packet to an egress virtual interface 26, the flow class to which the relevant packet belongs provides a transmit code point which specifies the transmission requirements of the relevant flow class. Each virtual interface is created to support a specific network topology, and to specify how to map a packet to and from the external network. Each virtual interface includes configurations to set the type of underlying physical interface assigned a driver instance, assign the label space of a physical layer that the virtual interface can use, set the type of virtual interface, enable disabled DHCP, assign a MAC address, assign an IP address and subnet mask, enable and disable IP multicasting, enable and disable broadcasting to other virtual interfaces of a particular type, enable and disable network address translation, and enable and disable spanning tree and set state priority and cost. In addition, a virtual interface contains the following information: received unicast bites and packets, received multicast bytes and packets, received broadcast bytes and packets, receiver discarded bytes and packets, transmitted bytes and packets, and transmitter discarded bytes and packets. See paragraphs 47 and 48.

From the above, it is clear that Moir fails to teach or suggest a "a virtual interface subsystem operative to couple the virtual router subsystem to the physical interfaces, the virtual interface subsystem including a plurality of virtual interfaces, the virtual interfaces

being organized into link sets, each link set during operative to associate a generic interface identifier of a given virtual router with a corresponding physical interface coupled to a network link connecting the network device to another network device serving a same VPRN, the virtual interfaces included in the virtual interface subsystem include channel virtual interfaces and media virtual interfaces, each channel virtual interface being operative to associate a generic interface identifier of the virtual router subsystem with a virtual channel defined in the network device, and each media virtual interface being operative to associate a virtual channel with a corresponding physical interface and physical channel defined on the associated physical network link." Accordingly, Claim 1 and Claim 14 and not anticipated by Moir.

The Examiner has rejected Claims 3 and 16 as being unpatentable over Moir in view of Chen. Applicants respectfully traverse this rejection.

As applicants have explained previously, the Examiner is ignoring the context of the teachings in the different references, applicants point out that this is black letter law. The Examiner cannot pick and choose the teachings out of the context in which they are found to arrive at applicants' claimed invention. The specific teachings are only applicable to the context in which they are found. The reference Chen is completely distinct from and has nothing at all to do with Moir, and vice versa. Chen is an overall system that has to do with

sending ATM cells and TDM information over a common fiber ring. Moir, in contradistinction, has to do with a specific device. The overall operation of what occurs inside the device, and the overall operation of what occurs in the overall system of the fiber ring are not applicable to each and other, let alone easily or obvious to apply the teachings of one to the other. Accordingly, for this reason alone, that the Examiner is ignoring the context in which the teachings are found that the Examiner is relying upon to arrive at applicants' claimed invention, applicants' Claims 3 and 16 are allowable.

Referring to Chen, there is disclosed a hybrid ATM/TDM transport over a common fiber ring. Chen teaches that communication networks employing fiber-optic rings as transmission media are typically limited to transmitting time division multiplexed information, making no provision for the transmission of asynchronous transfer technologies, such as ATM cells. See column 1, lines 18-26. Chen teaches a system 10 includes a fiber ring 12. System 10 further includes a plurality of nodes 14 residing in fiber ring 12. Each node 14 receives synchronous transfer mode signals from fiber ring 12. Tributaries 16 allow nodes 14 to communicate with network elements not residing on ring 12. Nodes 14 and interfacing tributaries 16 caring legacy data may include a segmentation and reassembly module 20. Segmentation and reassembly module 20 receives legacy data from local area network tributaries and segments the legacy data into ATM cells. In addition, segmentation and reassembly module 20 receives outgoing signals comprising ATM cells, and reassembled

legacy data for transport across particular tributaries. Each node 14 includes a signal manager 18 which provides the interface between the incoming signals containing ATM cells and/or TDM information from ring 12 and tributaries 16 and switching fabrics within node 14. Each node 14 includes asynchronous transfer mode switching fabric 24 that includes hardware and software operable to facilitate various synchronous transfer mode signal routing and switching functions. Each node 14 includes ATM switching fabric 22.

In operation, signal manager 18 receives from ring 12 and or tributaries 16 a plurality of incoming signals containing TDM information and ATM cells. Signal manager 18 may also receive incoming signals containing segmented ATM cells from segmentation and assembly module 20 and switched transport signals carrying TDM traffic emerge from synchronous transfer mode switching fabric 24. Similarly, switched transport signals carrying ATM cells emerge from ATM switching fabric 22. These outgoing signals bound for network elements coupled to node 14 or tributary 16 may be reformatted into signals appropriate for transfer over tributary 16 as necessary. Thus, it is very clear from this description that Chen has to do with transfer across a network of the time division multiplexed information along with the transmission of asynchronous transfer mode cells and have nothing to do with the architecture of a specific device.

It is respectfully submitted that Moir and Chen have nothing to do with each other and no one skilled in the art would ever look to Chen and its teachings to combine them with Moir to arrive at applicants' invention of Claim 3 and 16. It is clear from the above description that Chen is an architecture whose entire focus revolves around a fiber ring. In contrast, Moir specifically teaches a specific device whose architecture is limited to what is occurring inside that device. Taking the teachings regarding a fiber ring and the components distributed throughout it is completely inapplicable to apply to a specific internal architecture of a switch.

It is black letter patent law that teachings cannot be taken out of the context in which they are found. The teachings that the Examiner is relying upon from Chen in regard to APS is only explained and enabled in regard to how it is applied to a fiber ring and specifically the system and method taught by Chen. This context has nothing to do with the specific internal teachings of a switch as taught by Moir.

These different contexts in which the respective teachings are found cannot be ignored. It is respectfully submitted the Examiner is using hindsight to arrive at applicants' invention of Claims 3 and 16. The Examiner is using the limitations of Claims 3 and 16 as a road map to find the different limitations in different references, and having found them,

concluding that applicants' invention of Claims 3 and 16 are arrived at. Hindsight is not patent law.

Furthermore, there must be some teaching or suggestion in the references themselves to combine the teachings the Examiner relies upon, and here, there is none. As explained above, the different contexts preclude the possibility of such a teaching.

Lastly, the references cannot be combined because it will require undue experimentation, development and design work to somehow or other take the teachings the Examiner is relying upon regarding APS from Chen and somehow or other modify the switch of Moir so it would be operational with the teachings of Chen. Applicants are unsure how this would be done. Accordingly, Claims 3 and 16 are patentable over the applied art of record.

Furthermore, Chen in relevant part does not add anything to the teachings of Moir to arrive at Claims 1 and 14, from which Claims 3 and 16, respectively, depend. Accordingly, Claims 3 and 16 are patentable over Moir in view of Chen.

The Examiner has rejected Claims 5, 7-9, 18 and 20-22 as being unpatentable over Moir in view of Cisco. Applicants respectfully traverse this rejection. Cisco, in relevant part, does not add anything to the teachings of Moir to arrive at Claims 1 and 14, let alone

Claims 2 and 15, from which Claims 5, 7-9; 18 and 20-22, respectively, depend. Accordingly, Claims 5, 7-9, 18 and 20-22 are patentable over Moir in view of Cisco.

In view of the foregoing amendments and remarks, it is respectfully requested that the outstanding rejections and objections to this application be reconsidered and withdrawn, and Claims 1, 3-14 and 16-26, now in this application be allowed.

Respectfully submitted,

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